OVER-DOOR SHOE RACKS

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0001] Not Applicable.

CROSS-REFERENCE TO RELATED APPLICATIONS

[0002] The present application claims priority from U.S. Application Serial No. 10/189,638, filed July 3, 2002, entitled "Over-Door Shoe Racks", which is a divisional of U.S. Application Ser. No. 09/641,794, filed August 19, 1999 and now U.S. Letters Patent No. 6,533,127, issued March 18, 2003, entitled "Over-Door Shoe Racks" and which claims priority from U.S. Provisional Application Serial No. 60/149,794, filed August 19, 1999, entitled "Over-Door Shoe Racks".

BACKGROUND OF THE INVENTION

[0003] The present invention is generally directed to a hanging shoe rack, and is more particularly directed to a number of embodiments for shoe racks that hang from, or are positioned on, the back of the door or on another upright surface.

[0004] Hanging shoe racks are well known. For example, U.S. Patent No. 5,695,073, entitled "Hanging Shoe Rack", is directed to a hanging shoe rack having a pair of plastic side frame members, and a plurality of support bars positioned between the side frame members on which shoes may be supported. The present invention is directed to such a product, albeit with different features. U.S. Patent No. 5,695,073 is incorporated by reference, in its entirety, herein.

[0005] In particular, the shoe rack set forth in U.S. Patent No. 5,695,073 includes first and second plastic side frame members. Each side frame member has as vertical member having

a plurality of support arms extending outwardly and downwardly therefrom. The product has a plurality of shoe retaining bars. The shoe retaining bars are oriented in pairs, with each pair of bars aligned in a plane forming an acute angle with respect to the vertical surface on which the shoe rack is positioned. In this regard, one bar of each pair is positioned at outward ends of respective arms, while the other shoe retaining bar of the pair is positioned between the vertical members of the respective side frame members.

[0006] As illustrated best in Fig. 2 of U.S. Patent No. 5,695,073, the vertical members of the plastic side frame members are preferably spatially removed from the upright surface or door, due to the presence of leg members at upper and lower portions of the side frame members. Hangers, or brackets, are positioned over the door and receive foot members extending downwardly from leg members, as clearly illustrated and described in the '073 patent. As illustrated and described, when the hanging shoe rack product is positioned on an upright surface, the vertical members and outwardly and downwardly depending arms serve as lateral barriers to retain the shoes on the shoe rack.

SUMMARY OF THE INVENTION

[0007] Each embodiment of the present invention is directed to a shoe rack for mounting to an upright surface, or for hanging over a door. Each embodiment of the present invention employs two plastic side frame members, and a plurality of shoe retaining bars positioned between the side frame members, upon which shoes, boxes, and the like may be supported. However, each embodiment of the present invention incorporates different features, resulting in improved structural integrity over the prior art and/or resulting in a product that is less expensive

to manufacture and/or resulting in a product which retains shoes on the shoe rack in a different, or better, manner.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] The objects and features of the invention noted above are explained in more detail with reference to the drawings, in which like reference numerals denote like elements, and in which:

[0009] Fig. 1 illustrates a first embodiment of the shoe rack of the present invention;

[0010] Fig. 2 is a fragmentary view illustrating a second embodiment of a hanging shoe rack of the present invention;

[0011] Fig. 3 is a fragmentary view illustrating a third embodiment of a hanging shoe rack of the present invention;

[0012] Fig. 4 is a fragmentary view illustrating a fourth embodiment of a hanging shoe rack of the present invention;

[0013] Fig. 5 is a fragmentary view illustrating a fifth embodiment of a hanging shoe rack of the present invention;

[0014] Fig. 6 is a fragmentary view illustrating a sixth embodiment of a hanging shoe rack of the present invention;

[0015] Fig. 7 is a fragmentary view illustrating a seventh embodiment of a hanging shoe rack of the present invention;

[0016] Fig. 8 is a fragmentary view illustrating an eighth embodiment of a hanging shoe rack of the present invention;

[0017] Fig. 9 is a fragmentary view illustrating a ninth embodiment of a hanging shoe rack of the present invention;

[0018] Fig. 10 is a fragmentary view illustrating a tenth embodiment of a hanging shoe rack of the present invention;

[0019] Fig. 11 is a fragmentary view illustrating an eleventh embodiment of a hanging shoe rack of the present invention;

[0020] Fig. 12 is a fragmentary view illustrating a twelfth embodiment of a hanging shoe rack of the present invention;

[0021] Fig. 13 is a fragmentary view illustrating a thirteenth embodiment of a hanging shoe rack of the present invention; and

[0022] Figs. 14a and 14b illustrate a fourteenth embodiment of a hanging shoe rack of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0023] With reference now to the figures, it is again noted that each embodiment of the present invention employs first and second side frame members, preferably made of plastic, and a plurality of shoe retaining bars oriented in pairs. Additionally, each embodiment of the present invention preferably employs components or means for mounting the shoe rack to an upright surface or for hanging the shoe rack over a door. Additionally, each embodiment of the present invention preferably is a modular shoe rack, in that one shoe rack may be connected to another shoe rack of the invention, in a manner such as that set forth in U.S. Patent No. 5,695,073. The following described drawings illustrate only one side frame member, or a portion thereof, since

the remainder of the product will be readily understood in view of that which is disclosed herein, and that which has been incorporated herein by reference.

[0024] With reference initially to Fig. 1, a hanging shoe rack of the present invention has first and second plastic side frame members, with one such side frame member (a right side member) being illustrated and denoted generally by reference numeral 10. Side frame member 10 is preferably integrally formed of molded plastic. Side frame member 10 has a primary, arcuate, or curved member, often times referred to as a main body section, denoted generally by the reference numeral 12. Preferably, curved member 12 has an upper end, including a female socket 14, and a lower end, including a male member 16. As will be appreciated, one shoe rack of this embodiment of the invention can be connected to another shoe rack of this embodiment of the invention by placing the male member 16 of a first side frame member 12 in the female member 14 of a second side frame member 10, such that one shoe rack depends from the other. Additionally, side frame member 10 preferably has a foot member 18, which is received by a hanger such as the hanger illustrated and described in U.S. Patent No. 5,695,073, incorporated herein by reference.

[0025] Curved side frame member 12 preferably curves downwardly from an upper portion thereof to a lower most portion, denoted by the reference numeral 20. As illustrated, the lower most portion 20 of the side frame member is positioned outwardly from a rear portion of the side frame member 10, such that the curved member 12 does not curve all the way back to the vertical surface. Instead, an intermediary portion 22, which is preferably angled backwardly and upwardly, is positioned between the lower most portion 20 of side frame member 10 and a horizontal, rear member 24, from which the male member 16 depends.

[0026] A plurality of curved support arms, denoted by reference numeral 26, are positioned on plastic side frame member 10 and, in fact, are integrally formed therewith. The upper tiers of support arms 26, illustrated by the uppermost two tiers of Fig. 1, have a first portion 28 which extends outwardly in a first direction from the curved portion 12 and a second portion 30 which extends outwardly in an opposite direction from the curved side frame portion 12. Each arm 26 terminates in an enlarged outer end, denoted by reference numerals 32, which have sockets therein (on a reverse side from that shown), for receiving shoe retaining bars in a conventional manner. As illustrated, a shoe 34, when positioned on the shoe retaining bars, is retained from lateral movement both by the curvature of the support arm 26, as well as by the curved side portion 12. It is noted that, in the lowermost tier of shoe retaining bars, one of the sockets, denoted by reference numeral 36, is positioned in the member 12, as illustrated. The shoe rack illustrated in Fig. 1 is particularly useful for preventing shoes from falling off of the shoe rack, particularly when the shoe rack is positioned on a door, such that when the door is swung from an open to closed or closed to open position, the support arms 26 and curved member 12 prevent lateral movement of the shoes. Additionally, the curved nature of member 12 distributes stress on the shoe rack, resulting from the weight of the shoes positioned on the shoe rack, in an even or substantially even manner, thus reducing the stress points that would typically be found at an upper end of the rack.

[0027] With reference now to Fig. 2, an alternate embodiment is illustrated and described. Particularly, in the embodiment of Fig. 2, a vertical side frame member 40 is provided, with a plurality of linear support arms 42. Each support arm has a portion thereof extending upwardly and outwardly from a first side of the vertical member 40, and another

portion thereof extending downwardly and outwardly from an opposite side of the vertical member 40. In particular, the shoe rack is preferably positioned such that the toe 44 of the shoe 46 abuts up against the vertical surface upon which the shoe rack is mounted. Alternatively, however, the shoe rack could be constructed such that the vertical surface is positioned proximate the heel portion 48 of the shoe. The vertical member 40, as well as the enlarged outer portions 49 of support arm 42, prevent lateral movement of the shoe. As will be understood and appreciate, enlarged outer portions 49 have sockets (on an opposite side of that shown) for receiving shoe retaining bars.

[0028] In the embodiment of Fig. 3, the shoe rack again has a vertical side frame member 50, and shoe retaining bars oriented in pairs and positioned in respective sockets 52 in enlarged outer ends 54 of corresponding support arms 56, 58. As illustrated, support arm 56 preferably angles outwardly and downwardly in a first direction from vertical member 50, while support arm 58 depends outwardly and downwardly in a second direction from vertical member 50. Thus, the arms meet at somewhat of a peak at vertical member 50. As illustrated, the combination of vertical member 50 and arms 56, 58 create a barrier against lateral movement of the shoe 59.

[0029] With reference now to Fig. 4, the hanging shoe rack of the present invention includes a vertical side frame member 60 and a plurality of outwardly extending, curved support arms 62. Sockets for receiving shoe retaining bars are positioned at locations 64 and 66. As illustrated, the combination of vertical member 60 and the curved arm 62 provide a barrier against lateral movement of the shoe 68.

[0030] With reference now to Fig. 5, the hanging shoe rack includes a vertical member 70 and a plurality of horizontal, outwardly extending support arm 72. Sockets for receiving shoe retaining bars are positioned at enlarged areas 74 and 76. It should be understood and appreciated that the shoe rack could be constructed so that the vertical surface is to the left of the page, or to the right of the page.

[0031] With reference now to Fig. 6, the hanging shoe rack in this embodiment of the invention has a vertical side frame member 80 and a plurality of downwardly and outwardly extending support arms 82. The molded construction of this embodiment provides enlarged portions 84, 86. Sockets for receiving shoe retaining bars are preferably positioned centrally on the opposite side of enlarged areas 84, 86. In this embodiment, the combination of vertical member 80 and the enlarged areas 84, 86 provide a barrier against lateral movement of the shoe 88 when positioned on the shoe rack.

[0032] In the embodiment of Fig. 7, the shoe rack of the present invention includes a vertical member 90, a plurality of outwardly and upwardly angled support arms 92, and a horizontal barrier arm 94, positioned as shown. Shoe retaining bars are positioned in sockets at enlarged locations 96 and 98. The shoe 99 is retained on the bars primarily by the combination of vertical member 90 and barrier arm 94, and to a lesser degree by the angled support arms 92.

[0033] In the embodiment of Fig. 8, the hanging shoe rack of the present invention includes a vertical member 100, and a plurality of outwardly and upwardly angled support arms 102. Sockets for receiving shoe retaining bars are positioned at enlarged areas 104 and 106. A particular aspect of this embodiment is the provision of tabs 108 positioned at an upper portion

of support arm 102. As illustrated, the combination of vertical member 100 and tabs 108 provide a barrier against lateral movement of shoe 109.

[0034] In an alternative embodiment of Fig. 8, Fig. 9 has a similar vertical member 100, an angled support arm 102, with socket areas 104, 106. However, instead of the tabs 108 previously described, a loop portion 107 is presented for providing an additional lateral barrier. While the loop portion 107 is preferably formed of molded plastic, it could also be formed of another suitable material, such as wire. In the case where the loop 107 is formed of wire, it is potted into the molding compound used for forming the support arm 102.

[0035] In the embodiments of Figs. 10 and 11, a vertical support member 120 is provided. In the embodiment of Fig. 10, vertical support member 120 is positioned outwardly from an upright surface upon which the shoe rack is mounted. In this regard, the shoe rack is preferably mounted such that the toe portion 122 of the shoe 124 abuts up against the upright surface. In contrast, in the embodiment of Fig. 11, the vertical portion 120 preferably abuts up against the upright surface.

[0036] In each embodiment, a support arm 126 is provided. In a particular aspect of these embodiments, support arm 126 is curved in an "S-curve". In the embodiment of Fig. 10, the socket areas 127, 128 are positioned as shown, with the socket 128 being in the vertical member 120. In contrast, in the embodiment of Fig. 11, each socket area 127, 129 is on the support arm 126.

[0037] As illustrated, the precise nature of the "S-curve" arm 126 is different in each embodiment, with different dimensions at different angles. It will be understood and appreciated

that variations of this S-curve feature may be made without departing from the spirit and scope of the invention.

[0038] The embodiments of Figs. 12 and 13 are similar to the embodiment of Figure 7, with the exception that the vertical member 130 is positioned in abutment against the upright surface. Further, as illustrated in the alternative embodiment shown in Fig. 13, the barrier arm 132 may be curved or arcuate rather than horizontal as shown in Figs. 7 and 12. As can be seen in both Figs. 12 and 13, only the dimensions and appearance of the product have changed, but each serves the purpose of preventing lateral movement of the shoes.

[0039] The embodiment of Figs. 14a and 14b have first and second side frame members 140, 142, each having a number of support arms 144 angled outwardly and downwardly therefrom. Each support arm 144 has an angled portion 146 at an outer end thereof. As illustrated, the hanging shoe rack of this embodiment has a number of shoe retaining tiers 148. Each tier 148 has a first bar 150 a second bar 152 and a third bar 154, positioned as shown. In particular, bars 152, 154 form a parallel pair of bars for retaining shoes in a tilted manner as illustrated in Fig. 14b, such that the shoes are angled upwardly toward the surface upon which the shoe rack is mounted or positioned.

[0040] From the foregoing it will be seen that this invention is one well adapted to attain all ends and objects hereinabove set forth together with the other advantages which are obvious and which are inherent to the structure.

[0041] It will be understood that certain features and subcombinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of the claims.

[0042] Since many possible embodiments may be made of the invention without departing from the scope thereof, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative, and not in a limiting sense.